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Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Gradation/2017-18 23.12.2017

TEST REPORT ON GRADATION OF WET MIX MACADAM

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and Asphalting at Kuvempu School road and other roads in Mallasandra Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/144/2017-18 Dated: 21.12.2017
Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386 (part-1)1963 (RA-2011)
Date of Testing	:	23.12.2017

Oven Dry Wt (gm): **5000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits As per Morth Table 400-13
53	0	0	0	100	100
45	140	140	2.8	97.2	95-100
22.4	1450	1590	31.80	68.20	60-80
11.2	1125	2715	54.30	45.70	40-60
4.75	540	3255	65.10	34.90	25-40
2.36	475	3730	74.60	25.40	15-30
0.600	485	4215	84.30	15.70	8-22
0.075	510	4725	94.50	5.50	0-8

*Information is furnished by the Customer/Representative.

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Note:

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AE - 13

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/AIV/2017-18 23.12.2017

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and Asphalting at Kuvempu School road and other roads in Mallasandra Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/144/2017-18 Dated: 21.12.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS : 2386(Part -4)-1963 (RA-2011)
Date of Testing	:	23.12.2017

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	379	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	82	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	297	297	
4	Aggregate Impact value = percent fines 100* (W2/W1)%	21.64	22.25	21.94

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Wet Mix Macadam is 30%

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AE-13

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಾಪೂಜಿನಗರ ಮೆಲಾರು
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಪಶ್ಚಿಮ ವಲಯ

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Shape.T/2017-18 23.12.2017

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

*** Customer**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	:	**Technical Manager (West),** KRIDL, Bangalore.
*** Name of Work**	:	Improvements to Roads and Asphalting at Kuvempu School road and other roads in Mallasandra Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
*** Reference**	:	BBMP/EE/DD/WO/144/2017-18 Dated: 21.12.2017
*** Sample ID**	:	Wet Mix Macadam
Technical Reference	:	IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	:	23.12.2017

Sl.No.	Description	Result
1	Flakiness Index	12.50%
2	Elongation Index	13.05%
3	Combined Flakiness & Elongation Index	25.55%

*Information is furnished by the Customer/Representative.

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Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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RE-13

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಾಪೂಜಿನಗರ ಪೂರ್ವ
ವೃತ್ತ ಪಶ್ಚಿಮ ಮತ್ತು ಪೂರ್ವ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು

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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-01/538/QB(BM)/2017-18 09.01.2018

TEST REPORT ON DETERMINATION OF BITUMEN CHARACTERISTICS

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements to Roads and Asphalting at Kuvempu School road and other roads in Mallasandra Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/144/2017-18 Dated: 21.12.2017
* Sample ID	:	Bitumen
Source/ Location	:	Hot Mix Plant, Bangalore.
Sample Received on	:	05.01.2018
Period of Testing	:	09.01.2018

The results of the tests conducted on the bitumen sample are as follows:

Sl. No	Description	Test Method as per IS	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	IS :1203 -1978 (RA-2014)	65	60 to 70
2	Softening point, ^{0}C	IS :1205 -1978 (RA-2014)	46	Min. 45
3	Ductility at 27^{0}C, cm	IS :1208 -1978 (RA-2014)	100 >	Min.50
4	Flash Point, ^{0}C	IS :1209 -1978 (RA-2014)	312	Min. 220

* Information is furnished by the Customer/Representative

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VIDYARANI P.K.
Technical Manager

AE-13

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ಪದ್ಮನಾಭನಗರ, ಬೆಂಗಳೂರು

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Job No: CTCE/BBMP/KRIDL/W.No.13/BM/AIV/2017-18

09.01.2018

TEST REPORT ON IMPACT VALUE OF AGGREGATES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and Asphalting at Kuvempu School road and other roads in Mallasandra Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/144/2017-18 Dated: 21.12.2017
* Sample ID	:	Hot Mix Plant, Bangalore
Technical Reference	:	IS : 2386(Part -4)-1963 (RA-2011)
* Type of Mix	:	Bituminous Macadam
Date of Testing	:	09.01.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	388	395	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	90	95	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	298	300	
4	Aggregate Impact value = percent fines 100* (W2/W1)%	23.20	24.05	23.62

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Bituminous Macadam is 30%

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